

REMARKS/ARGUMENTS

1.) Claim Amendments

The Applicant has amended no claims. Applicant respectfully submits no new matter has been added. Accordingly, Claims 1-19 are pending in the application. Favorable reconsideration of the application is respectfully requested in view of the foregoing amendments and the following remarks.

Reply to the Examiner's Response to Arguments

The Examiner states that "it is well known that SGSNs and GGSNs may be integrated within the same physical node...". The Applicant agrees. Then the Examiner states that "it would have been obvious to one of ordinary skill to include a GGSN..., as is conventional." The Examiner then states that a GGSN is definitely in the node just because it may be integrated with the SGSN in the same node (bottom of page 3 to line 2 of page 4). The Applicant disagrees. This rationale is not logical, especially when the Jones reference, according to the Examiner's own statement, does not indicate any such thing ("...related to the fact that Jones did not explicitly teach a GGSN – top of page 11). Obviously, just because something is possible does not mean that it is so. If there is no need for a GGSN in a particular invention, would the skilled person include it anyway because it is conventional? The Applicant respectfully submits this would not happen and that the examiner is wrong regarding the combination of references.

Claim Rejections – 35 U.S.C. § 103 (a)

The Examiner rejected claims 1-14 and 19 under 35 U.S.C. § 103(a) as being unpatentable over Jones, et al. (WO 02/011467) in view of Kalavade, et al. (US 2003/0051041) and the Liberty Alliance Project Specifications documents "Liberty Alliance Overview" and Liberty Bindings and Profiles Specification" published July 11, 2002 (Liberty). The Applicant respectfully traverses the rejection of these claims.

In the previous response, the Applicant provided arguments for the differences between the present invention and the cited art references of Jones, Kalavade and Liberty. The Jones reference does not disclose explicitly a GGSN so it is not possible to provide a V-GGSN that has been assigned for the user at a visited packet radio network

where the user is roaming. The V-GGSN of the Applicant's invention sends the user's identifiers that are relevant for the user's authentication towards the user's home network. Although Jones discloses a Home RADIUS Server for authenticating a user with user identifier and password, Jones fails to disclose a H-AAA that maintains a master session for the user with the user's identifiers (binds the home AAA server address with the user's identifiers).

Kalavade is cited for teaching a system for consolidated billing used with roaming wireless devices. The Applicant previously summarized the present invention as follows:

A typical 'Single Sign-On' (SSO) service (paragraph [0002]) enables users to access different services without the different services explicitly authenticating such users for each particular service. The support of this principle implies in the Internet world that a user provides an identity with a password only once at a given Identity Provider and the resulting authentication is valid for entrance to other services or Service Providers.

As claim 1 of the present invention discloses, when a user attempts to sign on to Service Provider (SP) in a federation of Mobile Network Operators (group of related MNOs), the SP provides a specific URI as a Single Sign-On entry point towards the federation. The provided SSO point is trusted by the rest of the MNOs in the federation. As the user roams through the federation each Service Provider that receives a sign on request from the user receives a token where the authentication assertion of the user was generated (specific URI). The SP checks that the site is trusted and if so, the user is allowed to log into the SP. In other words, the user can sign on to one of any number of "trusted" sites and any subsequent SP receives notification that the user is authenticated at a trusted site, which is part of the Global Single Sign-On Front End. (para. 79-82) This method comprises the steps of authenticating the user roaming in the visited packet radio network, via a proxy, towards the user's home service network and creating a master session at the user's home service network with Single Sign-On related data.

The Jones reference is cited for disclosing Single Sign-On utilizing a home RADIUS server and broadly interprets the Kalavade reference, which teaches a consolidated billing system used with roaming devices, as reading on the Global-SSO-Front End of the Applicant's present application.

The present invention discusses authentication by subsequent networks. A user has to be authenticated by a first network (or first domain) before accessing a second network (or second domain, or second service) and the user has to be authenticated by

the second network before using second network services or before accessing a third network (or third domain, or third service), and so on. In this case there is need for further authentication.

The Applicant's present invention, applying SSO where authentication of the user is required by each subsequent system, discloses that the original network authenticates the user and the subsequent networks have a mechanism (disclosed above) to verify that the user has been authenticated by the original network. The present invention addresses scenarios where SSO makes sense and describes a mechanism in terms of a system and a method to allow the user to access the subsequent network (or subsequent service) without requiring a further explicit authentication.

Quoting From Ex Parte Orlofsky, page 9, BPAI (2002); "The Examiner states that Appellant's arguments are not persuasive because one cannot show nonobviousness by attacking references individually when the rejection is based on a combination of references (EA7). Appellant responds that the arguments merely show that, even if combined, the claim elements are not shown in the references (RBr1).

We agree with Appellant. Manifestly, if none of the references teach a claimed feature, as shown by addressing the references individually, then the combination of references will also not contain the claimed feature. The admonition against attacking references individually applies where an applicant fails to address the combined teachings of the references. (emphasis added)

The Applicant has previously provided arguments regarding the lack of a V-GGSN and repeats part of the arguments here. Jones does not disclose a GGSN so it is not possible to provide a V-GGSN that has been assigned for the user at a visited packet radio network where the user is roaming. The V-GGSN of the Applicant's invention sends the user's identifiers that are relevant for the user's authentication towards the user's home network. Although Jones discloses a Home RADIUS Server for authenticating a user with user identifier and password, Jones fails to disclose a H-AAA that maintains a master session for the user with the user's identifiers.

Jones does not maintain resources while the user accesses other networks via SSO authentication. Again, as lacking any motivation for SSO, Jones fails to provide a

H-AAA for maintaining a master session for the user with the user's identifiers. Jones fails to provide a H-AAA for maintaining a master session for a user with the user's identifiers in the home network.

This 'master' session can only be understood as contrasting with a sort of 'slave' or 'associated' session in the V-AAA, wherein the binding of the H-AAA address and user's identifier takes place. Consequently, the above combination of prior art cannot be read as anticipating the H-AAA maintaining a master session for the user and the V-AAA acting as a proxy between the V-GGSN and the H-AAA, and binding an H-AAA address with said user's identifiers.

In summary, among other limitations Jones does not disclose a system comprising: a V-GGSN assigned for the user at a visited packet radio network wherein the user is roaming, the V-GGSN sending user's identifiers relevant for the user's authentication towards the user's home network; a H-AAA maintaining a master session for the user with said user's identifiers; and a V-AAA acting as a proxy between the V-GGSN and the H-AAA, and binding an H-AAA address with said user's identifiers.

Nor does Kalavade teach a V-GGSN connected to the Hotspot AAA server, and the information provided by Kalavade about the Hotspot AAA server is not applicable at all to the communication between a GGSN and an AAA. Moreover, the communication between the Hotspot AAA server and the CBG, even if making use of a RADIUS protocol, is not the same as the one required to communicate a V-AAA and a H-AAA, each one connectable with a corresponding GGSN, thus fitting GPRS related data.

Additionally Kalavade is cited as teaching, in a Multinational Mobile Network Operator federation (see preamble of claims 1 and 10), generating an authentication token and means for checking that the site from which the token is received that the site is trusted. The Applicant respectfully disagrees with this interpretation of Kalavade. The paragraphs cited [0089]-[0090] and [0160]-[0176], do not disclose the above recited limitations. There is a disclosure of the use of authentication tokens, but at the very least the token is not disclosed as being used in more than one session.

The present invention operates in a Multinational Network (operators that overlap in different nations) that has an agreement to trust a token presented by a mobile that is generated by a particular URI. So, Kalavade does not disclose the Multinational

Network, nor does it disclose using the token generated by the URI and trusted by all the operators. The Applicant respectfully submits that a combination of Jones and the Kalavade references does not produce the recited limitations.

Regarding the Liberty Alliance Project (LAP) reference used for support in rejecting "the federation providing a specific Uniform Resource Identifier (URI)...", the Examiner has not pointed to the specific features within the Liberty Bindings and Profiles Specification that the Examiner believes identically discloses the specific elements (and interactions between elements) recited in the claims. The Examiner cites pages 11-22 and 30-32 and states that redirection means, receiving means, etc., of claim 1 are examples of SSO processes described in those pages.

In effect, the Examiner is placing the burden on the Applicant to establish that the reference does not disclose the claimed elements based upon the Applicant's interpretation of the claims and the Applicant's comparison of the claims with the applied prior art. Applicant also notes that any continuing disagreement between Applicant and the Examiner as to whether or not a particular claimed feature is disclosed by the reference is a direct result of a lack of specificity by the Examiner in the statement of the rejection.

That said, as the Examiner states on page 4 in the Detailed Action, the Liberty Alliance Project document describes structures and processes, etc., which is added to disclose the MMN Operator federation for providing SSO services (which are missing from the Jones and Kalavade references). The Applicant respectfully submits that the Bindings and Specifications document in Liberty does not disclose a Multinational Mobile Network Operator federation for providing SSO services. And since that particular limitation is not disclosed by the Liberty reference and the Detailed Action indicates that both Jones and Kalavade fails to disclose same, the Applicant respectfully submits that when considered individually or in combination; this limitation in concert with other missing limitations discussed above, is not disclosed by the cited art.

The Applicant respectfully submits that the cited references do not disclose individually or in combination the limitations recited in claims 1 and 10. This being the case, the Applicant respectfully requests the allowance of independent claims 1 and 10

and since the depending claims contain the same limitations, the Applicant requests the allowance of dependent claims 2-9, 11-14 and 19.

Claims 15-18 stand rejected under 35 U.S.C. § 103(a) as obvious over Jones, Kalavade and the LAP specifications documents as applied to claims 1-14 above, and further in view of US Patent 6,578,085 to Khalil et al (hereinafter "Khalil"). The Applicant respectfully traverses the rejection of these claims.

The Applicant submits that the Khalil reference, cited for tracking IP addresses assigned to a mobile node where the IP addresses are assigned by a number of foreign networks fails to disclose the missing limitations in Jones and Kalavade as noted above.

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all of the claim limitations (MPEP 2143).

In that regard, the Applicant respectfully submits that the Examiner's four references still fail to teach or suggest each and every element of the presently pending independent claims. Claims 15-18 depend from claim 10 and recite further limitations in combination with the novel elements of claim 10. Therefore, the allowance of claims 15-18 is respectfully requested. The Examiner rejected claims 15-18 under 35 U.S.C. § 103(a) as being unpatentable over Jones, Kalavade, and the Liberty specification documents as applied to claims 1-14 above, and further in view of Khalil, *et al.* (US 6,578,085).

CONCLUSION

In view of the foregoing remarks, the Applicant believes all of the claims currently pending in the Application to be in a condition for allowance. The Applicant, therefore, respectfully requests that the Examiner withdraw all rejections and issue a Notice of Allowance for all pending claims.

The Applicant requests a telephonic interview if the Examiner has any questions or requires any additional information that would further or expedite the prosecution of the Application.

Respectfully submitted,

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